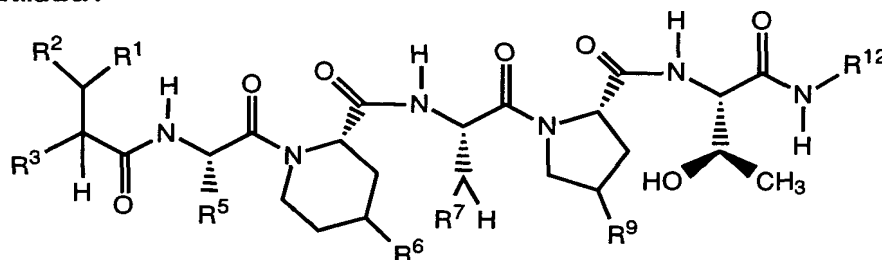


PIPECOLIC ACID DERIVATIVES OF PROLINE THREONINE
AMIDES USEFUL FOR THE TREATMENT OF RHEUMATOID
ARTHRITIS

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ABSTRACT

Non-peptidic compounds characterized by containing a segment condensed from pipecolic acid, aspartic acid, proline and threonine, or derivatives thereof, are
 10 useful to treat autoimmune diseases and inflammatory conditions. Compounds of particular interest are those of the formula:



wherein R^1 is phenyl or cyclohexyl; wherein R^2 is hydrido or
 15 methyl; wherein R^3 is selected from hydrido, hydroxy, acetylamino, acetyl(Lys/Tyr/Thr)NH-, propionylamino and benzyloxycarbonylamino; wherein R^5 is selected from isopropyl, isobutyl, n-propyl, n-butyl, aminopropyl, aminobutyl, phenyl, benzyl, hydroxyphenyl, hydroxybenzyl,
 20 morpholinocarbonylethyl, morpholinocarbonylpropyl, piperazinocarbonylethyl, piperazinocarbonylpropyl, pyridinylcarbonylethyl, pyridinylcarbonylpropyl, oxazolylcarbonylethyl, oxazolylcarbonylpropyl, azepinylcarbonylethyl and azepinylcarbonylethyl; wherein R^6
 25 is selected from hydrido, methyl, hydroxy, methoxy, phenyl and aminocarbonyl; wherein R^7 is carboxyl or methylthiomethyl; wherein R^9 is selected from hydrido, hydroxy, methoxy and phenyl; wherein R^{12} is selected from methyl, ethyl, propyl, butyl, isobutyl, $-\text{CH}(\text{iBu})\text{CH}_2\text{OH}$ and
 30 $-\text{CH}(\text{iBu})\text{CONH}_2$; or a pharmaceutically-acceptable amide, ester or salt thereof. A disease state of particular interest for use of the compounds would be rheumatoid arthritis.